AECOM
10 Patewood Drive
Bldg. VI, Suite 500
Greenville, South Carolina 29615
www.aecom.com

864 234 3000 tel
864 234 3069 fax

January 19, 2010

Mr. Ryan Benefield
Chief of Hazardous Waste Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Subject: **Feasibility Study Report (Submitted December 15, 2009)**
Former Cedar Chemical Facility
Helena – West Helena, Arkansas
EPA ID No. ARD990660649

Dear Mr. Benefield:

AECOM has reviewed the *Feasibility Study (FS) Report* submitted by AMEC Geomatrix, Inc. for the former Cedar Chemical Facility. On behalf of Tyco Safety Products – Wormald U.S., Inc. ("Wormald"), AECOM respectfully submits this letter as a matter of record to document general comments compiled as a result of the *FS Report* review.

Comments:

- The human health risk assessment (Section 5.0 and Appendix A) identified two potential exposure pathways for on-site soil – direct contact and vapor intrusion. Paragraph 1 on page 11 of Section 6.0 identifies constituents of concern (COCs) in on-site soils for each pathway [i.e., dieldrin, dinoseb, and aldrin for the direct contact exposure pathway and chloroform and 1,2-dichloroethane (1,2-DCA) for the vapor intrusion pathway]. Although the COC list for each pathway is unique, the remedies presented in Section 6.1 address on-site soils as a whole and do not differentiate between remedies designed to address a particular exposure pathway. The COCs identified for each pathway exhibit very different physical properties and, as such, the select remedies are not necessarily applicable or appropriate for all contaminants/pathways. For instance, soil vapor extraction may address the vapor intrusion pathway for 1,2-DCA, but would not be necessary to implement to address dinoseb exposure via the direct contact pathway. Institutional controls (i.e., land use controls, deed restrictions, and site security measures) should be sufficient on their own to control direct contact exposure to dinoseb in on-site soils. Furthermore, as presented in the *Focused Feasibility Study Report – Site 3* (AECOM, June 2009), institutional controls are an appropriate and cost-effective remedy to address potential exposure to residual dinoseb concentrations in Site 3 soils.

- Furthermore, institutional controls (e.g., land-sure controls, deed restrictions, site security) should be sufficient on their own (without the need for enhanced cover) to address direct contact exposure to non-volatile compounds (like dinoseb), which are not identified as COCs in perched or alluvial groundwater. The remedies to address the direct contact and vapor intrusion pathways in soil should be discussed separately or Section 6.1 should include a discussion on the applicability of each remedy for the distinct exposure pathways.

- The purpose for the soil/geotextile cover presented on Figure 7 and discussed in Section 6.1, page 13, bullet 2 is unclear. Figures 3 and 4, which identify instances of COCs above risk levels for the

vapor intrusion and direct contact exposure pathways in soil, do not include any COCs exceeding risk screening levels for the identified soil/geotextile cover area, which encompasses Site 3 and the storm water ditches. As stated in bullet 1, institutional controls are an appropriate measure to address residual dinoseb concentrations in soil in this area.

- Section 7.0: The basis for the recommendation to remove all above-ground structures is unclear. The recommendation does not appear to be based on controlling exposure risk, since no COCs or exposure pathways are identified for the remaining structures. We do not believe that there is enough information to justify razing all above-ground structures.

- Dinoseb was not selected as a constituent of concern (COC) for the perched zone or the alluvial aquifer groundwater. If groundwater monitoring is included in the remedy for the perched zone (as discussed in Section 6.2) and the alluvial aquifer (as discussed in Section 6.3), we believe that measures should be taken to protect the existing on-site monitoring wells. The on-going monitoring well network should be identified early in the remedial process, prior to the commencement of any construction activities at the Site. Once the monitoring well network is identified, obsolete monitoring wells could be abandoned to make construction easier. A plan to protect the selected monitoring well network during possible construction activities should be developed to eliminate the costs associated with needing to replace wells damaged during the construction process.

- The FS addresses all three media of concern – soil, perched water, and alluvial aquifer, but does not clearly indicate how the overall remedial process would be implemented. AECOM recommends that the overall approach to remediation be clearly defined so that all parties understand the rationale and remediation sequence that is anticipated for the site.

If you have any questions or require additional information, please contact me at (864) 234-2282 or via email at leslee.alexander@aecom.com or Ms. Ann Faitz at (501) 831-5637.

Sincerely,

AECOM

Leslee J. Alexander, P.G.
Project Manager

c: Mr. Dara Hall, ADEQ Counsel
Mr. John Perkins, Tyco Safety Products
Ms. Ann Faitz, Tyco Counsel
Mr. Allan Gates, HCC Legal Counsel
Mr. Joe Ghormley, Exxon Legal Counsel
Project File 104336

104336:\ADMIN\Correspondence\AECOM Draft Comments to AMEC FS_rev02.doc